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| 09/816,372 | 03/26/2001 | Yasuhiko Kanemasa | 826.1710 | 7328 |
| 21171 | 7590 | 01/25/2005 | EXAMINER | |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | ZHEN, LI B | |
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DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,372

Applicant(s)

KANEMASA ET AL.

Examiner

Li B. Zhen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004 and 07 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 23 are pending in the current application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1 – 3, 9 – 17, 19 and 21 – 23 rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,581,691 to Hsu et al. [hereinafter Hsu, cited in the previous office action].**

4. As to claim 1, Hsu teaches a process executing device [execution of individual work units, which is handled by application programs under the control of clients (i.e., processes running on computers in the system); col. 6, lines 30 – 36] in a data interchange system [distributed computer system 100, Fig. 1; col. 4, lines 16 – 25] for executing a series of process flows among a plurality of process executing devices [a "model" of each type of work flow defined for a particular distributed computer system is stored in the form of a set of tables; col. 6, lines 10 – 17 and 38 – 46], said process executing device comprising:

a process executing data interchanging unit interchanging process executing data for executing a process with another process executing device [flow controller control the execution of each work flow; col. 5, lines 9 – 14], and

an interprocess association information interchanging unit interchanging with the other process executing device [output condition evaluation module 178 issues output event messages through one or more output ports 180, Fig. 4; col. 6, lines 1 – 20] interprocess association information [each input event signal 511 in the FIE queue 510 specifies the enclosing Flow Instance 512 in which the arc for the signal is located, as well as the Step Type 514 and the Port ID 516 of that Step Type to which the input event signal is directed; col. 12, lines 27 – 39] that associates the process executed by the process executing device with the process executed by the other process executing device [events in that queue are sorted by the Step ID for the step to which the event signal is being sent, and then by input Port ID; col. 9, lines 36 – 50] based on a correspondence relation between the process executing data and the process executed by the other process executing device [Arc Table 250 contains records 251 that provide information for each data path within a flow; Step Type Table 270 contains one record 271 for each step in each of the defined Flow Types; Port Table 300 defines each of the input and output ports for each step in each defined flow; col. 7, line 63 – col. 8, line 20].

5. As to claim 2, Hsu teaches the interprocess association information is information that associates the processes with one another using a pad of the process executing data [col. 11, line 63 – col. 12, line 1 and Fig. 17 “Workspace Descriptor”].

6. As to claim 3, Hsu teaches interprocess association information is part of the process executing data, and is the information for associating processes with each other using data that takes an exclusive value for each process of the series of process flows ["unique Flow Instance ID" col. 11, lines 57 – 60].

7. As to claim 9, Hsu teaches the interprocess association information interchanging unit dynamically determines the other process executing device to which the interprocess association information is transmitted using a part of the process executing data [col. 13, lines 3 – 5].

8. As to claim 10, Hsu teaches the process executing device in the data interchange system further comprising:

- an association definition storing unit storing a method to define the interprocess association as an association definition [Fig. 17]; and

- an association unit associating the process executed by the process executing device with the process executed by the other process executing device [col. 12, lines 34 – 38].

9. As to claim 11, Hsu teaches the process executing device in the data interchange system further comprising:

a device interprocess association unit associating the processes executed by the process executing device that are identical to the process executed by the other process executing device using the interprocess association information transmitted from the other process executing device [implied by integrating upstream parallel work flow paths using the Flow Instance ID; col. 5, lines 51 – 52].

10. As to claim 12, Hsu teaches a data interchange system [distributed computer system 100, Fig. 1; col. 4, lines 16 – 25] for executing a series of process flows among a plurality of process executing devices [a "model" of each type of work flow defined for a particular distributed computer system is stored in the form of a set of tables; col. 6, lines 10 – 17 and 38 – 46], comprising:

an interprocess association information storing unit [arc table 250, step type table 270, port table 300; col. 7, line 63 – col. 8, line 26] storing an interprocess association information that associates a process executed by each of said plurality of process executing devices with the process executed by the other process executing device based on a correspondence relation between process executing data and the process executed by the other process executing device, which is transmitted by the plurality of process executing devices [Arc Table 250 contains records 251 that provide information for each data path within a flow; Step Type Table 270 contains one record 271 for each step in each of the defined Flow Types; Port Table 300 defines each of the input and output ports for each step in each defined flow; col. 7, line 63 – col. 8, line 20]; and

an interprocess association information distribution unit distributing the interprocess association information [output condition evaluation module 178 issues output event messages through one or more output ports 180, Fig. 4; col. 6, lines 1 – 20] stored in said interprocess association information storing unit to the process executing device which is related to the interprocess association information [each input event signal 511 in the FIE queue 510 specifies the enclosing Flow Instance 512 in which the arc for the signal is located, as well as the Step Type 514 and the Port ID 516 of that Step Type to which the input event signal is directed; col. 12, lines 27 – 39].

11. As to claim 13, Hsu teaches an addressee definition storing unit storing a method for determining an addressee of the interprocess association information as an addressee definition [combination of the Flow instance, Step Type, and Port ID; col. 12, lines 33 – 39], and wherein said interprocess association information distribution unit distributes, interprocess association information based on the addressee definition [“...to which the input event signal is directed”; col. 12, lines 38 – 39].

12. As to claim 14, Hsu teaches interprocess association information distribution unit dynamically determines the addressee of the process association information using a part of a process executing data transmitted from the plurality of process executing devices [col. 12, lines 33 – 39].

13. As to claim 15, this is rejected for the same reasons as claim 12 above.

14. As to claim 16, Hsu teaches a data interchange device [distributed computer system 100, Fig. 1; col. 4, lines 16 – 25] for interchanging data concerning a process included in a series of process flows with an external device [col. 6, lines 10 – 17 and 38 – 46], comprising:

an executing data interchanging unit interchanging a process executing data with the external device [flow controller control the execution of each work flow; col. 5, lines 9 – 14]; and

an interprocess association information interchanging unit interchanging with the external device [output condition evaluation module 178 issues output event messages through one or more output ports 180, Fig. 4; col. 6, lines 1 – 20] interprocess association information [each input event signal 511 in the FIE queue 510 specifies the enclosing Flow Instance 512 in which the arc for the signal is located, as well as the Step Type 514 and the Port ID 516 of that Step Type to which the input event signal is directed; col. 12, lines 27 – 39] which associates a process executed by the process executing device with the process executed by the external device [events in that queue are sorted by the Step ID for the step to which the event signal is being sent, and then by input Port ID; col. 9, lines 36 – 50] based on a correspondence relation between the process executing data and the process executed by the external device [Arc Table 250 contains records 251 that provide information for each data path within a flow; Step Type Table 270 contains one record 271 for each step in each of the defined Flow

Types; Port Table 300 defines each of the input and output ports for each step in each defined flow; col. 7, line 63 – col. 8, line 20].

15. As to claim 17, this is a method claim that corresponds to apparatus claim 16; note the rejection to claim 16 above, which also meets this method claim.

16. As to claim 19, this is a product claim that corresponds to apparatus claim 16; note the rejection to claim 16 above, which also meets this method claim.

17. As to claims 21 and 22, these are rejected for the same reasons as claim 16 above.

18. As to claim 23, Hsu teaches a method for interchanging data between an external device [execution of individual work units, which is handled by application programs under the control of clients (i.e., processes running on computers in the system); col. 6, lines 30 – 36] and a processor executing a process in a series of process flows [a "model" of each type of work flow defined for a particular distributed computer system is stored in the form of a set of tables; col. 6, lines 10 – 17 and 38 – 46], comprising:

obtaining interprocess association information associating first and second processes respectively executed by the processor and the external device [each input event signal 511 in the FIE queue 510 specifies the enclosing Flow Instance 512 in

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which the arc for the signal is located, as well as the Step Type 514 and the Port ID 516 of that Step Type to which the input event signal is directed; col. 12, lines 27 – 39] based on a correspondence relation between the second process and process executing data of the first process [Arc Table 250 contains records 251 that provide information for each data path within a flow; Step Type Table 270 contains one record 271 for each step in each of the defined Flow Types; Port Table 300 defines each of the input and output ports for each step in each defined flow; col. 7, line 63 – col. 8, line 20]; and

interchanging the process executing data and the interprocess association information between the processor and the external device [output condition evaluation module 178 issues output event messages through one or more output ports 180, Fig. 4; col. 6, lines 1 – 20].

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. **Claims 4 – 8, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu.**

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21. As to claims 4, 18 and 20, Hsu does not disclose interprocess association information interchanging unit interchanges the interprocess association information with the other process executing device using a transfer method different from the method used by said process executing data interchanging unit. However, it is well known in the art to use different transfer methods for different sets of data.

22. It would have been obvious to one of ordinary skill in the art at the time of the invention to interchange the two types of data using different transfer methods in order to efficiently transfer the different types of data.

23. As to claim 5, Hsu does not disclose interprocess association information interchanging unit interchanges the interprocess association information at a timing that is not synchronized with the timing for interchanging the process executing data by said process executing data interchanging unit. However, it is well known in the art to deliver two related but separate data asynchronously.

24. It would have been obvious to one of ordinary skill in the art at the time of the invention to deliver the two types of data asynchronously in order to deliver information as it becomes available to reduce latency.

25. As to claim 6, Hsu does not disclose said interprocess association information interchanging unit periodically and collectively interchanges the interprocess association information. However, periodically interchanging data throughout a system is well known in the art.

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26. It would have been obvious to one of ordinary skill in the art at the time of the invention to periodically and collectively interchange the information in order to keep the system's components synchronized.

27. As to claims 7 and 8, Hsu does not explicitly disclose interprocess association information interchanging transmits the other process executing device inquiry information for inquiring about the process which executed by other process executing device and is related with the process executed by the process executing device in addition to the process association information, and wherein

the other process executing device further comprising:

an inquiry response unit associating the processes executed by both process executing devices and responding to the inquiry information from the process executing device.

28. However, such an inquiry and response system is implied by the ability to associate the Flow Instance, Step Type, and Port ID with the input event signals (col. 12, lines 26-39).

Response to Arguments

29. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2126

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